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PTO/SB/21 (08-00)

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# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission	Application Number	10/674,241
	Filing Date	09/29/2003
	First Named Inventor	Horace P. Yuen
	Group Art Unit	2131
	Examiner Name	
Attorney Docket Number		6407

## ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Response <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below): <b>Copies of Non-Patent Literature</b>
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### Remarks

Applicant believes that all appropriate fees are hereby paid, but authorization is hereby given to charge Deposit Account No. 18-0882 for any fee deficiency or credit any overpayment.

Leonard J. Kalinowski  
**Leonard J. Kalinowski**

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

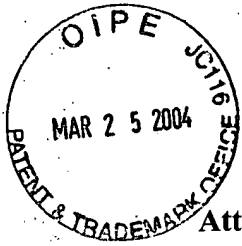
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MW/1067669



Attorney's Docket No. 6407

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent application

In re application of: HORACE P. YUEN

Group Art Unit: 2131

Serial No.: 10/674,241

Filed: September 29, 2003

For: ULTRA-SECURE, ULTRA-EFFICIENT CRYPTOGRAPHIC SYSTEM

Commissioner for Patents

P.O. Box 1450

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**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  
WITHIN THREE MONTHS OF FILING OR BEFORE MAILING OF  
FIRST OFFICE ACTION (37 CFR 1.97(b))**

**NOTE:** "An information disclosure statement shall be considered by the Office if filed: (1) within three months of the filing date of a national application; (2) within three months of the date of entry of the national stage as set forth in § 1.491 in an international application; or (3) before the mailing date of a first Office action on the merits, whichever event occurs last." 37 CFR 1.97(b).

**NOTE:** The "filing date of a national application" under 37 CFR 1.97(b) has two possible meanings. Where the filing is a direct one to the United States Patent & Trademark Office, the filing is defined in 37 CFR 1.53(b) as "the date on which: (1) A specification containing a description pursuant to § 1.71 and at least one claim pursuant to § 1.75; and (2) any drawing required by § 1.81(a), are filed in the Patent and Trademark Office in the name of the actual inventor or inventors as required by § 1.41." 37 CFR 1.97(b)(1). On the other hand, an international application that enters the national stage occurs when the applicant has filed the documents and fees required by 35 U.S.C. § 371(c) within the periods set forth in § 1.494 or § 1.495. 35 U.S.C. § 371(c) requires the filing of the following: (1) the national fee; (2) a copy of the international application, unless already sent by the International Bureau, and an English translation if filed in another language; (3) amendments under PCT Article 19, with a translation into English if made in another language; (4) an oath or declaration; and (5) a translation into English of any annexes to the International preliminary examination report, if such annexes were made in another language. 37 CFR 1.97(b)(2).

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## IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING INFORMATION DISCLOSURE STATEMENT

The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 CFR 1.97(b).

**NOTE:** "No certification or fee is due when the filing is made within the above time period. It is advisable to ensure that no Office action has been mailed if the disclosure statement is delayed until after three months from filing.

**NOTE:** "An information disclosure statement will be considered to have been filed on the day it was received in the Office, or on an earlier date of a mailing if accompanied by a properly executed certificate of mailing under 37 CFR 1.8, or Express Mail certificate under 37 CFR 1.10. An Office action is mailed on the date indicated in the Office action." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

**NOTE:** "The term 'national application' includes continuing applications (continuations, divisions, continuations-in-part) so three months will be measured from the actual filing date of an application as opposed [sic] to the effective date of a continuing application." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

**NOTE:** "An action on the merits means an action which treats the patentability of the claims in an application, as opposed to only formal or procedural requirements. An action on the merits would, for example, contain a rejection or indication of allowability of a claim or claims rather than just a restriction requirement (37 CFR 1.142) or just a requirement for additional fees to have a claim considered (37 CFR 1.16(d)). Thus, if an application was filed on Jan. 1 and the first Office action on the merits was not mailed until six months later on July 1, the examiner would be required to consider any proper information disclosure statement filed prior to July 1." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

**WARNING:** "A petition for suspension of action to allow applicant time to submit an information disclosure statement will be denied as failing to present good and sufficient reasons, since 37 CFR 1.97 provides adequate recourse for the timely submission of prior art for consideration by the examiner." Notice of July 6, 1992 (1141 O.G. 63).

Dated: March 22, 2004  
Reg. No. 24,207  
Tel. No.: (414) 298-8359

Leonard J. Kalinowski

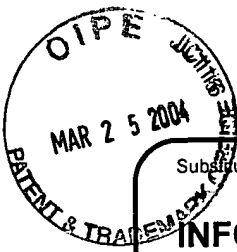
SIGNATURE OF ATTORNEY

Leonard J. Kalinowski

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Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 2

### Complete if Known

Application Number	10/674,241
Filing Date	09/29/2003
First Named Inventor	Horace P. Yuen
Group Art Unit	2131
Examiner Name	
Attorney Docket Number	6407

### U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
	AA	US-5,243,649	09/07/1993	Franson	
	AB	US- 5,307,410	04/26/1994	Bennett	
	AC	US- 5,515,438	05/07/1996	Bennett et al.	
	AD	US- 5,850,441	12/15/1998	Townsend et al.	
	AE	US- 5,953,421	09/14/1999	Townsend	
	AF	US- 6,272,224	08/07/2001	Mazourenko et al.	
	AG	US- 2003/0002670	01/02/2003	Wang	
	AH	US- 2002/0106084	08/08/2002	Azuma et al.	
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### FOREIGN PATENT DOCUMENTS

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		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				

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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.

<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 2

of

2

**Complete if Known**

Application Number	10/674,241
Filing Date	09/29/2003
First Named Inventor	Horace P. Yuen
Group Art Unit	2131
Examiner Name	
Attorney Docket Number	6407

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AI	CALSAMIGLIA, John; BARNETT, Stephen M.; LUTKENHAUS, Norbert. Conditional beam-splitting attack on quantum key distribution. Physical Review, 2001, 65:012312-1 - 012312-12.	
	AM	YUEN, Horace P. Quantum versus classical noise cryptography. Northwestern University, 2000, pp. 399-404.	
	AN	YUEN, Horace P.; KIM, Ajung M. Classical noise-based cryptography similar to two-state quantum cryptography. Physics Letters A, 1998, 241:135-138.	
	AO	YUEN, Horace P. Anonymous key quantum cryptography and unconditionally secure quantum bit commitment. Northwestern University, 2000, pp. 1-11.	
	AP	YUEN, Horace P. Unconditionally secure quantum bit commitment is possible. Northwestern University, 2000, pp. 1-41.	
	AQ	BARBOSA, Geraldo A.; CORNDORF, Eric; KUMAR, Prem; YUEN, Horace P. Secure communication using coherent states. Northwestern University, 2002, pp. 1-4.	
	AR	BARBOSA, Geraldo A.; CORNDORF, Eric; KUMAR, Prem; Yuen, Horace P. Quantum cryptography in free space with coherent-state light. Northwestern University, 2002, pp. 1-11.	
	AS	BARBOSA, Geraldo A.; CORNDORF, Eric; KUMAR, Prem; YUEN, Horace P. Secure communication using mesoscopic coherent states. Physical Review Letters, 2003, 90:227901-1 - 227901-4.	
	AT	KUMAR, Prem; YUEN, Horace P. Slides for SPIE Annual Meeting, Seattle, WA. July 11, 2002.	
	AU	YUEN, Horace P.; KUMAR, Prem. Slides for DARPA QuIST Review, Cambridge, MA, September 9-13, 2002.	

Examiner  
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